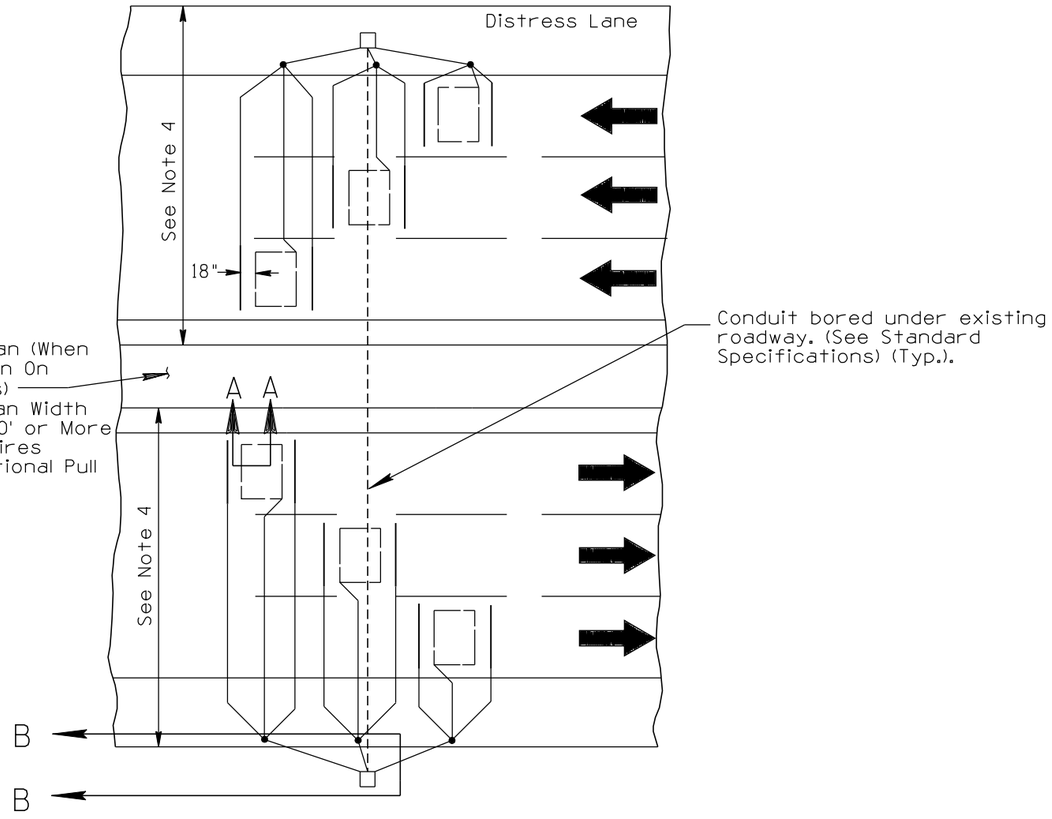
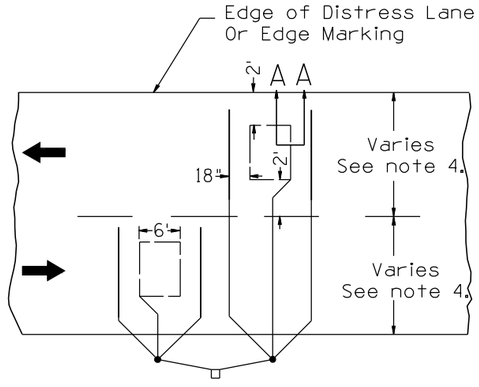
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	ORIGINAL ISSUE	J. GEIST	9/08
2			
3			
4			



WIM INSTALLATION IN
MULTI-LANE DIVIDED HIGHWAY



WIM INSTALLATION
IN UNDIVIDED HIGHWAY

NOTES:

1. Weigh-in-motion systems require 1 loop detector between 2 flat type piezo sensors, centered in lane with an 18" separation as seen in drawing. Piezo sensor must be parallel to the leading edge of the loop detector and perpendicular to the roadway with no more than 1" variation across the face of the loop or piezo sensors. Each lane should be staggered to avoid cross-talk interference.
2. 11' piezo sensors are standard for all travel lanes up to 12 feet in width. For lanes wider than 12 feet adjust length of piezo to allow for ½foot from center stripe and lane edge marking to maintain the sensors aquistion of all vehicles passing through the lane.
3. Saw cuts for piezo sensors in weigh-in-motion installations shall be ¾inch wide and 1 inch deep across the entire surface of the roadway.
4. 9' x 6' loops with 3 turns of sheathed, THHN stranded, 14 AWG, single conductor, copper wire are standard for all travel lanes up to 12 feet in width. For lanes widths other than 12 feet, adjust width of loop detector to allow for 1.5 feet from lane stripe to loop detector and 1.5 feet from loop detector to next lane stripe across all lanes. Maintain 6 foot travel direction dimension of loop detector.
5. Backfill with excavated material and thoroughly tamp.
6. For cabinet and foundation standard drawings and details, refer to T.S. 7-4 and T.S. 4-1
7. Where pull boxes are installed in concrete areas, ½" felt shall be used as an expansion joint.
8. All excavated material not reused shall be properly disposed of.
9. Piezo sensors and loops to be placed in travel lanes (roadway width less painted distress lane or edge marking = travel lanes).
10. Saw cut sealant for detector loops and piezo sensors lead-in in AC shall be the emulsified crack filler sealant per the Standard Specifications. The sand shall be pre-mixed by the manufacturer. Sealant for detector loops in PCCP shall be the Elastomeric Sealant per the Standard Specifications, or an approved two-part epoxy loop sealant.
11. A vendor approved piezo encapsulation sealant/grout shall be used to seal the piezo sensors.
12. Use same material (or approved equal) for patching existing pavement. Patch to at least ¼" greater thickness than existing pavement.
13. Contact MPD Data Analysis at (602-712-8585) or (602-712-7172) no less than 7 working days prior to installation of the loop detectors. MPD Data Analysis will have a technician available to oversee the installation, and to answer any questions pertaining to the proper installation and layout of the ATR components.

NOT TO SCALE

DESIGN APPROVED: SIGNATURE ON FILE	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION TRAFFIC SIGNALS & LIGHTING STANDARD DRAWINGS	REV. 9/08
APPROVED FOR DISTRIBUTION	DETECTOR LOOPS FOR SPEED/VEHICLE CLASS	DRAWING NO. T.S. 7-10